

**REMARKS**

The final rejection dated December 16, 2003 has been received and carefully considered. In summary, applicant acknowledges that claims 2-39, 41, and 43-47 are pending in the application and that claims 33-38, 46, and 47 have been withdrawn from consideration. Applicant has, by this Amendment, cancelled claims 33-38, 46 and 47 for pursuit in a divisional application. Applicant acknowledges with appreciation the allowance of claims 3-29, 39, and 43-45. The rejection of claims 2, 30-32, and 41 has been maintained. Applicant also added new claim 48 for consideration. Applicant respectfully submits that claims 2, 30-32, 41, and 48 patentably distinguish from the references and, therefore, request reconsideration and allowance of these claims.

**Description of Claimed Invention**

In general terms, the invention of this application relates to a payout device used in connection with a welding wire drum which utilizes multiple rings to control the unwinding of the coiled wire. The control of the unwinding of the wire is the result of the interaction of the rings relative to one another and the interengagement between at least one of the rings and the outgoing wire.

With respect to rejected claims 2 and 30-32, the ring arrangement comprises a three-ring configuration wherein the first and second rings are laterally spaced from one another and rest on top of the wire coil. The lateral spacing of the first and the second ring produce a continuous generally circular gap between the ring and above the top of the wire coil. The wire passes through this generally circular gap as it is unwound from the wire coil. The third ring overlies the first and second rings and at least partially covers the gap produced between the first and the second ring. As a result, the unwinding of the welding wire is controlled by the interaction of all three rings.

Turning to claim 41, the recited invention also relates to a multi-ring payout device used to control the unwinding of a welding wire from a wire coil positioned in a wire drum. The recited invention includes a first laterally stationary ring adjacent to the drum body which is spaced from the inner core of the drum. The device further includes a second ring which moves in connection with one of the first ring, another ring, and the core of the welding wire drum to further define a payout opening extending about the drum axis. Further, the second ring overlies the first ring.

### **Description of the Cited References**

Claims 2, 3-32, and 41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nagata in view of Smith.

Nagata discloses a wire payout device which includes only a first and a second ring. In this respect, referring to FIGS. 3 and 4, Nagata discloses a first ring 4A which rests on the wire coil and a second ring 4B which is laterally spaced from ring 4A and also rests on the wire coil. Based on the different sizes of rings 4A and 4B, the rings produce a gap 5 which extends about the drum axis. Both rings 4A and 4B rest on the top surface of the wire coil and based on their respective sizes and configurations are prevented from moving laterally. Further, neither ring rests on the other ring. As the examiner has pointed out, "Nagata does not disclose a third ring overlying the first and second rings." Nagata does not disclose a third ring.

Smith discloses a device used to control the unwinding of a wire from a wire coil. The Smith device is a unified cone-shaped device which includes an outer flange that prevents lateral movement and controls the descent of the cone-shaped device within the drum cavity and coaxial to the drum axis. Only a small portion of the bottom surface of the device actually rests on the top of the wire coil. In this respect, based on the cone-shaped configuration, Smith's unwinding device only

engages the wire coil at the outer edge of the wire coil. Smith's does not disclose a second ring nor does it disclose a third ring. Smith's discloses a single unified cone-shaped device which rests directly on the wire coil and which descends with the wire coil as the wire is unwound therefrom.

**Claims 2, 30-32 and 41 are Non-Obvious in View of the Cited References**

Claim 2 recites a payout device for controlling the payout of wire from a coiled wire in a drum which comprises a first ring resting on the top of the wire coil and a second ring also resting on the top of the wire coil which are spaced from one another to produce a continuous generally circular gap above the top of the wire coil. The payout device of claim 2 further includes a third ring which overlies the first and second rings and at least partially covers the gap between the first and second rings. Neither Nagata nor Smith disclose a third ring let alone a third ring which rests on top of a first and a second ring. Further, neither disclose the concept of partially covering the gap produced between a first and a second ring.

Turning to Nagata, disclosed is a payout device which includes only a first and a second ring which are spaced from one another. Nagata's first and second rings rest directly on the wire coil and Nagata does not disclose a third ring, let alone a third ring positioned on top of a first and second ring wherein the third ring at least partially covers the gap between the first two rings.

Smith fails to overcome the shortcomings of Nagata. While Smith discloses a device that can be used to control the unwinding of a wire coil, Smith discloses only a single unified cone-shaped structure which rests directly on the top of the wire coil. Smith fails to disclose or make obvious a second ring and fails to disclose the use of a third ring. Further, Smith fails to disclose or make obvious the use of a third ring which rests on the top of the first and second rings let alone the concept of at least partially covering the gap produced between the first and the second rings.

With respect to the examiner's contention that Smith discloses a multi-ring structure having several different and independent components. Referring to FIG. 1, Smith discloses a unified cone-shape structure. While the unified structure includes different shapes and configurations, there is no basis for the contention that this ring structure could be dissected into multiple independent components that are capable of moving relative to one another. Smith even discloses the advantages of having a unified or one-piece design in his disclosure. In this respect, with reference to the last paragraph on page 3, Smith states "because the underside of the guide 1 provides a continuous smooth surface the wire 6 unwinds smoothly, with no snagging." Smith, page 3, last paragraph. Dissecting Smith into separate components or combining Smith with Nagata would take away from this desired attribute. Applicant respectfully submits that only the improper use of hindsight reconstruction in view of applicant's disclosure can be used to make the contended combination. Neither of these references disclose or make obvious the use of a third ring nor do they disclose or make obvious the specific configuration of applicant's third ring which overlies the first and second rings. For these reasons, applicant respectfully submits that claim 2 patentably distinguishes from the cited references and is also allowable.

Claims 30-32 are dependent from independent claim 2 and are allowable for at least the same reasons.

Claim 41 recites a payout for controlling the unwinding of wire from a wire coil which comprises a plurality of rings including a first ring which is laterally stationary relative to the drum axis and which is adjacent the drum body. Claim 41 further recites a second ring which moves in connection with one of the first ring, yet another ring, and the core of the wire drum to further define a payout opening extending about the drum axis. Further, the second ring overlies the first ring of

the payout device. As stated above, neither Nagata nor Smith disclose the use of overlying ring arrangements. Nagata discloses only two rings which are laterally spaced from one another. Both of Nagata's rings rest on the top of the wire coil. Accordingly, Nagata fails to disclose or make obvious the use of overlying rings as is recited in independent claim 41.

Smith fails to overcome the shortcomings of Nagata in that Smith also fails to disclose overlying rings. In this respect, Smith discloses a unified or single ring structure which rests directly on top of the wire coil. In view of the unified structure of Smith, it does not provide any teaching on utilizing an overlying ring structure to control the unwinding of the wire from a wire coil. Only the improper use of hindsight reconstruction in view of applicant's disclosure can create the combination of Nagata and Smith contended by the examiner. Accordingly, applicant respectfully submits that claim 41 also patentably distinguishes from the cited references and is allowable.

Applicant has further added claim 48 for consideration. Claim 48 is similar to independent claim 2 in that it recites a payout device for controlling the payout of wire from a coiled wire in a drum which comprises a three-ring structure. The three-ring structure includes a first and a second ring which rests directly on the top of the wire coil which are spaced from one another to produce a continuous generally circular gap above the of the wire coil. The third ring overlies the first and second rings and at least partially closes the gap between the first and second rings. Applicant respectfully submits that Nagata and Smith fail to disclose or make obvious the three-ring configuration recited in claim 48. As is stated above, neither of these cited references disclose a three-ring arrangement nor do they disclose the concept of rings which overlie one another to control the unwinding of a wire from a wire coil. Accordingly, applicant respectfully submits that claim 48 also patentably distinguishes from the cited references and is allowable.

### Summary

As stated above, claims 33-38, 46 and 47 which were withdrawn from consideration based on applicant's election, have been cancelled from this application for pursuit in a divisional case. Accordingly, the remaining claims pending in the above-identified application are claims 2-32, 39, 41, 43-45, and 48. Applicant again acknowledges with appreciation the allowance of claims 3-29, 39, and 43-45. The only issue remaining is the rejection of claims 2, 30-32, and 41 and new claim 48.

Applicant respectfully submits that the cited references fail to disclose the use of a third ring which overlies a first and a second ring to control the payout of wire from a wire coil. Nagata discloses only two rings and Smith discloses only one ring. Neither disclose the use of three rings and neither provide a suggestion to combine these references into a three-ring system. In addition, the cited references fail to disclose the concept of overlying rings. As previously discussed by applicant, such combination would not even create the recited ring structure of the rejected claims. Accordingly, applicant respectfully submits that claims 2, 30-32, 41, and 48 also patentably distinguish from the cited references and are in allowable form whereby reconsideration and allowance are respectfully requested.

Respectfully submitted,  
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